



# 2-Speed Hammer Drill

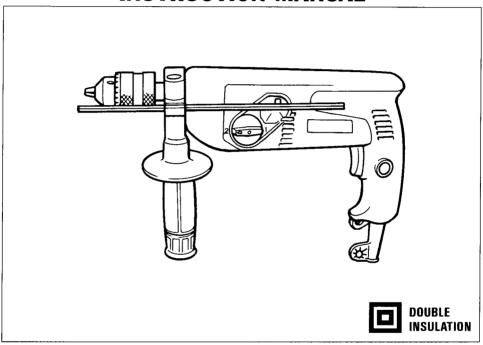
20 mm (3/4") MODEL HP2040

Variable speed / Reversing

20 mm (3/4")

MODEL HP2041 Variable speed / Reversing

# INSTRUCTION MANUAL



#### **SPECIFICATIONS**

Speed	Capacities			No load speed	Blows	Overall	Net
	Concrete	Steel	Wood	(RPM)	per minute	length	weight
High	13 mm (1/2'')	8 mm (5/16'')	25 mm (1'')	0 - 2,900	0 - 37,700	364 mm	2.3 kg
Low	20 mm (3/4'')	13 mm (1/2'')	40 mm (1-9/16/'')	0 — 950	0 - 12,400	(14-5/16'')	(5 lbs)

- \* Manufacturer reserves the right to change specifications without notice.
- \* Specifications may differ from country to country.

WARNING: For your personal safety, READ and UNDERSTAND before using.

SAVE THESE INSTRUCTIONS FOR FUTURE REFERENCE.

# **GENERAL SAFETY RULES**

(For All Tools)

WARNING! Read and understand all instructions. Failure to follow all instructions listed below, may result in electric shock, fire and/or serious personal injury.

# SAVE THESE INSTRUCTIONS READ ALL INSTRUCTIONS.

#### **WORK AREA**

- Keep your work area clean and well lit. Cluttered benches and dark areas invite accidents.
- 2. Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases, or dust. Power tools create sparks which may ignite the dust or fumes.
- 3. Keep bystanders, children, and visitors away while operating a power tool. Distractions can cause you to loose control.

#### **ELECTRICAL SAFETY**

- 4. Double Insulated tools are equipped with a polarized plug (one blade is wider than the other.) This plug will fit in a polarized outlet only one way. If the plug does not fit fully in the outlet, reverse the plug. If it still does not fit, contact a qualified electrician to install a polarized outlet. Do not change the plug in any way. Double insulation eliminates the need for the three wire grounded power cord and grounded power supply system.
- Avoid body contact with grounded surfaces such as pipes, radiators, ranges and refrigerators. There is an increased risk of electric shock if your body is grounded.
- 6. Don't expose power tools to rain or wet conditions. Water entering a power tool will increase the risk of electric shock.
- 7. Do not abuse the cord. Never use the cord to carry the tools or pull the plug from an outlet. Keep cord away from heat, oil, sharp edges or moving parts. Replace damaged cords immediately. Damaged cords increase the risk of electric shock.
- 8. When operating a power tool outside, use an outdoor extension cord marked "W-A" or "W." These cords are rated for outdoor use and reduce the risk of electric shock.

#### PERSONAL SAFETY

- 9. Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use tool while tired or under the influence of drugs, alcohol, or medication. A moment of inattention while operating power tools may result in serious personal injury.
- 10. Dress properly. Do not wear loose clothing or jewelry. Contain long hair. Keep your hair, clothing, and gloves away from moving parts. Loose clothes, jewelry or long hair can be caught in moving parts.

- 11. Avoid accidental starting. Be sure switch is off before plugging in. Carrying tools with your finger on the switch or plugging in tools that have the switch on invites accidents.
- 12. Remove adjusting keys or switches before turning the tool on. A wrench or a key that is left attached to a rotating part of the tool may result in personal injury.
- **13.** Do not overreach. Keep proper footing and balance at all times. Proper footing and balance enables better control of the tool in unexpected situations.
- 14. Use safety equipment. Always wear eye protection. Dust mask, non-skid safety shoes, hard hat, or hearing protection must be used for appropriate conditions.

#### TOOL USE AND CARE

- 15. Use clamps or other practical way to secure and support the workpiece to a stable platform. Holding the work by hand or against your body is unstable and may lead to loss of control.
- **16.** Do not force tool. Use the correct tool for your application. The correct tool will do the job better and safer at the rate for which it is designed.
- 17. Do not use tool if switch does not turn it on or off. Any tool that cannot be controlled with the switch is dangerous and must be repaired.
- 18. Disconnect the plug from the power source before making any adjustments, changing accessories, or storing the tool. Such preventive safety measures reduce the risk of starting the tool accidentally.
- **19.** Store idle tools out of reach of children and other untrained persons. Tools are dangerous in the hands of untrained users.
- 20. Maintain tools with care. Keep cutting tools sharp and clean. Properly maintained tools, with sharp cutting edges are less likely to bind and are easier to control.
- 21. Check for misalignment or binding of moving parts, breakage of parts, and any other condition that may affect the tools operation. If damaged, have the tool service before using. Many accidents are caused by poorly maintained tools.
- 22. Use only accessories that are recommended by the manufacturer for your model. Accessories that may be suitable for one tool, may become hazardous when used on another tool.

#### **SERVICE**

- 23. Tool service must be performed only by qualified repair personnel. Service or maintenance performed by unqualified personnel could result in a risk of injury.
- 24. When servicing a tool, use only identical replacement parts. Follow instructions in the Maintenance section of this manual. Use of unauthorized parts or failure to follow Maintenance Instructions may create a risk of electric shock of injury.

# Specific Safety Rules

- Hold tools by insulated gripping surfaces when performing an operation where the cutting tool may contact hidden wiring or its own cord. Contact with a "live" wire will make exposed metal parts of the tool "live" and shock the operator.
- 2. Wear ear protectors when using the tool for extended periods. Prolonged exposure to high intensity noise can cause hearing loss.
- 3. Wear a hard hat (safety helmet), safety glasses and/or face shield. It is also highly recommended that you wear a dust mask, ear protectors and thickly padded gloves.
- 4. Under normal operation, the tool is designed to produce vibration. The screws can come loose easily, causing a breakdown or accident. Check tightness of screws carefully before operation.
- 5. Always be sure you have a firm footing. Be sure no one is below when using the tool in high locations.
- 6. Hold the tool firmly with both hands. Always use the side grip.
- 7. Keep hands away from rotating parts.
- 8. Do not leave the tool running. Operate the tool only when hand-held.
- 9. Do not touch the bit or the workpiece immediately after operation; they may be extremely hot and could burn your skin.

# SAVE THESE INSTRUCTIONS.

# **SYMBOLS**

The followings show the symbols used for tool.

V	volts
Α	amperes
Hz	herts
kg	kilograms
h	hours
min	minutes
S	seconds
$\sim$	alternating current
	direct current
n <sub>o</sub>	no load speed
$\overline{\sim}$	alternating or direct current
	splash-proof construction
	watertight construction
/min	revolutions or reciprocation per minute
	number of blow

#### **ASSEMBLY**

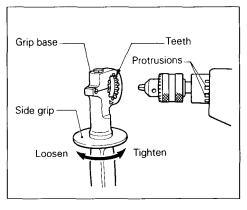
#### CAUTION:

Always be sure that the tool is switched off and unplugged before installing or removing the side grip, bit or other accessories.

## Side grip (auxiliary handle)

Always use the side grip to ensure operating safety. Install the side grip so that the teeth on the grip fit in between the protrusions on the tool barrel.

Then tighten the grip by turning clockwise at the desired position. It may be swung 360° so as to be secured at any position.



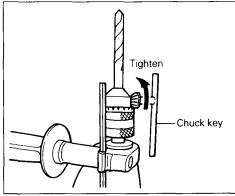
## Installing or removing drill bit

#### For HP2040

To install the bit, place it in the chuck as far as it will go. Tighten the chuck by hand. Place the chuck key in each of the three holes and tighten clockwise. Be sure tighten all three chuck holes evenly.

To remove the bit, turn the chuck key counterclockwise in just one hole, then loosen the chuck by hand.

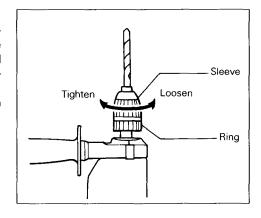
After using the chuck key, be sure to return to the original position.



#### For HP2041

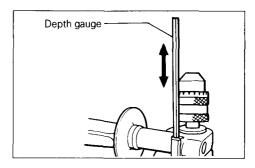
Hold the ring and turn the sleeve counterclockwise to open the chuck jaws. Place the bit in the chuck as far as it will go. Hold the ring firmly and turn the sleeve clockwise to tighten the chuck.

To remove the bit, hold the ring and turn the sleeve counterclockwise.



## Depth gauge

The depth gauge is convenient for drilling holes of uniform depth. Loosen the side grip and insert the depth gauge into the hole in the side grip. Adjust the depth gauge to the desired depth and tighten the side grip.



#### NOTE:

The depth gauge cannot be used at the position where the depth gauge strikes against the gear housing.

#### **OPERATION**

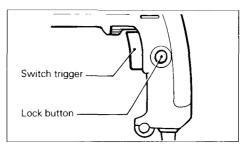
#### Switch action

CAUTION:

Before plugging in the tool, always check to see that the switch trigger actuates properly and returns the "OFF" position when

released.

To start the tool, simply pull the trigger. Tool speed is increased by increasing pressure on the trigger. Release the trigger to stop. For continuous operation, pull the trigger and then push in the lock button. To stop the tool from the locked position, pull the trigger fully, then release it.

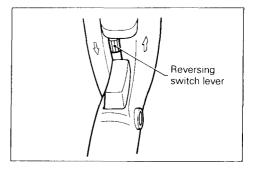


## Reversing switch action

CAUTION:

- •Always check the direction of rotation before operation.
- •Use the reversing switch only after the tool comes to a complete stop. Changing the direction of rotation before the tool stops may damage the tool.

This tool has a reversing switch to change the direction of rotation. Move the reversing switch lever to the  $\hat{\gamma}$  position for clockwise rotation or the  $\hat{\chi}$  position for counterclockwise rotation.



#### Speed change

Two rpm ranges can be preselected with the speed change knob.

For low speed, turn the knob so that the pointer on the knob points to the number 1 marked on the tool body.

For high speed, turn the knob so that the pointer points to the number 2.

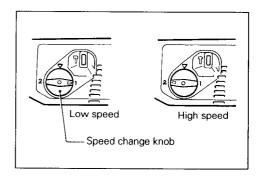
If the knob is not turned smoothly, turn the chuck slightly in either direction and then turn the knob again.

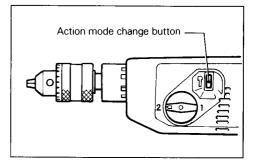
## Selecting action mode

This tool has an action mode change button.

For rotation only, depress the button from the side with also symbol.

For rotation with hammering, depress the button from the side with \( \gamma \) symbol.





#### CAUTION:

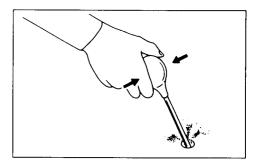
Always depress the button all the way to your desired mode position. If you operate the tool with the button positioned half-way between the mode symbols, the tool may be damaged.

#### Operation

1) Hammer drilling operation

When drilling in concrete, granite, tile, etc., depress the action mode change button from the side with  $\Im$  symbol to use "rotation with hammering" action. Be sure to use a tungsten-carbide tipped bit. Do not apply more pressure when the hole become clogged with chips or particles. Instead, turn the tool at an idle, then remove the bit partially from the hole. By repeating this several times, the hole will be cleaned out.

After drilling the hole, use the blow-out bulb to clean the dust out of the hole.



## 2) Drilling operation

When drilling in wood, metal or plastic materials, depress the action mode change button from the side with asso symbol to use "rotation only" action.

Drilling in wood

When drilling in wood, best results are obtained with wood drills equipped with a guide screw. The guide screw makes drilling easier by pulling the bit into the workpiece.

Drilling in metal

To prevent the bit from slipping when starting a hole, make an indentation with a centerpunch and hammer at the point to be drilled. Place the point of the bit in the indentation and start drilling.

Use a cutting lubricant when drilling metals. The exceptions are iron and brass which should be drilled dry.

#### CAUTION:

- •Pressing excessively on the tool will not speed up the drilling. In fact, this excessive pressure will only serve to damage the tip of your bit, decrease the tool performance and shorten the service life of the tool.
- •There is a tremendous twisting force exerted on the tool/bit at the time of hole breakthrough. Hold the tool firmly and exert care when the bit begins to break through the workpiece.
- •A stuck bit can be removed simply by setting the reversing switch to reverse rotation in order to back out. However, the tool may back out abruptly if you do not hold it firmly.
- •Always secure small workpieces in a vise or similar hold-down device.

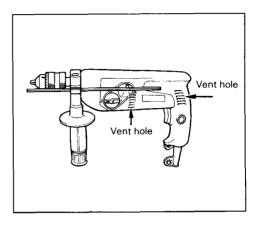
#### **MAINTENANCE**

CAUTION:

Always be sure that the tool is switched off and unplugged before attempting to perform inspection or maintenance.

## Cleaning vent holes

Periodically clean the vent holes to prevent them from being clogged with dust, dirt or the like.



To maintain product SAFETY and RELIABILITY, repairs, maintenance or adjustment should be performed by Makita Authorized or Factory Service Centers, always using Makita replacement parts.

#### **ACCESSORIES**

CAUTION:

These accessories or attachments are recommended for use with your Makita tool specified in this manual. The use of any other accessories or attachments might present a risk of injury to persons. The accessories or attachments should be used only in the proper and intended manner.

• Chuck key S13 Part No. 763430-3



• Depth gauge Part No. 415486-9



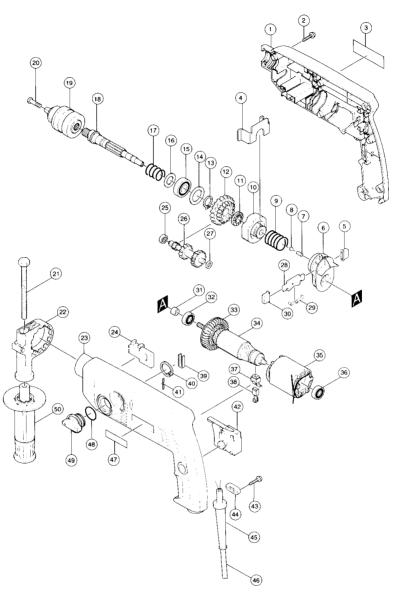
 Plastic carrying case Part No. 824449-8



• Blow-out bulb Part No. 765009-6



# 20 mm (3/4") 2-SPEED HAMMER DRILL Model HP2040

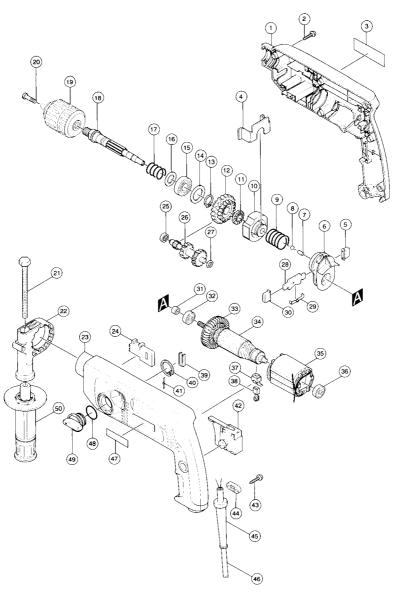


Note: The switch and other part configurations may differ from country to country.

NO.	NO. USED	DESCRIPTION	ITEM NO.	NO. USED	DESCRIPTION
MAC	HINE		MAC	HINE	
1	[ 1 ]	Housing Set (With Item 23)	27	1 1	Flat Washer 8
2	10	Tapping Screw Flange PF 4x18	28	1 1	Change Plate
3	1	Name Plate	29	1 1	Leaf Spring
4	1	Retainer	30	1 1	Change Button
5	1	Change Button	31	1	Sleeve 8
6	1	Inner Housing Complete	32	1	Ball Bearing 608LB
7	1	Pin 4	33	1	Fan 55
8	1	Steel Ball 3.5	34	1	ARMATURE ASSEMBLY
9	1	Compression Spring 23			(With Item 32, 33 & 36)
10	1	Cam B	35	1 1	Field
11	1	Cam A	36	1 1	Ball Bearing 627LB
12	1	Spur Gear 28-38	37	2	Brush Holder
13	1	Retaining Ring S-15	38	2	Carbon Brush
14	1	Flat Washer 22	39	1	Slider Plate
15	1	Ball Bearing 6002LLB	40	1	Retaining Ring S – 24
16	1	Flat Washer 15	41	1 1	Leaf Spring
17	1	Compression Spring 18	42	1 1	Switch
18	1	Spindle	43	2	Tapping Screw Flange PF 4x18
19	1	Drill Chuck S13	44	1	Strain Relief
20	1	Flat Head Screw M6x22	45	1	Cord Guard
21	1	Hex. Bolt M8x110	46	1	Cord
22	1	Grip Base	47	1	Makita Label
23	1 1	Housing Set (With Item 1)	48	1	O Ring 22
24	1 1	Slider	49	1	Change Lever Complete
25	1 1	Ball Bearing 696ZZ	50	1	Grip 36 Complete
26	1	Gear Complete 8-18-23			

Note: The switch and other part specifications may differ from country to country.

# 20 mm (3/4") 2-SPEED HAMMER DRILL Model HP2041



Note: The switch and other part configurations may differ from country to country.

NO.	NO. USED	DESCRIPTION	ITEM NO.	NO. USED	DESCRIPTION
MAC	HINE		MAC	HINE	
1	1 1	Housing Set (With Item 23)	27	1	Flat Washer 8
2	10	Tapping Screw Flange PF 4x18	28	1 1	Change Plate
3	1	Name Plate	29	1	Leaf Spring
4	1	Retainer	30	1 1	Change Button
5	1	Change Button	31	1	Sleeve 8
6	1	Inner Housing Complete	32	1 1	Ball Bearing 608LB
7	1	Pin 4	33	1 1	Fan 55
8	1	Steel Ball 3.5	34	1	ARMATURE ASSEMBLY
9	1	Compression Spring 23	i		(With Item 32, 33 & 36)
10	1	Cam B	35	1	Field
11	1	Cam A	36	1	Ball Bearing 627LB
12	1	Spur Gear 28 - 38	37	2	Brush Holder
13	1	Retaining Ring S-15	38	2	Carbon Brush
14	1	Flat Washer 22	39	1	Slider Plate
15	1	Ball Bearing 6002LLB	40	1	Retaining Ring S – 24
16	1	Flat Washer 15	41	1	Leaf Spring
17	1	Compression Spring 18	42	1	Switch
18	1	Spindle	43	2	Tapping Screw Flange PF 4x18
19	1	Keyless Drill Chuck S13	44	1	Strain Relief
20	1	Flat Head Screw M6x22	45	1	Cord Guard 8-85
21	1	Hex. Bolt M8x110	46	1	Cord
22	1	Grip Base	47	1	Makita Label
23	1	Housing Set (With Item 1)	48	1	O Ring 22
24	1	Slider	49	1	Change Lever Complete
25	1	Ball Bearing 696ZZ	50	1	Grip 36 Complete
26	1	Gear Complete 8-18-23	1		

Note: The switch and other part specifications may differ from country to country.



# MAKITA LIMITED ONE YEAR WARRANTY

### Warranty Policy

Every Makita tool is thoroughly inspected and tested before leaving the factory. It is warranted to be free of defects from workmanship and materials for the period of ONE YEAR from the date of original purchase. Should any trouble develop during this one-year period, return the COMPLETE tool, freight prepaid, to one of Makita's Factory or Authorized Service Centers. If inspection shows the trouble is caused by defective workmanship or material, Makita will repair (or at our option, replace) without charge.

This Warranty does not apply where:

- repairs have been made or attempted by others:
   repairs are required because of normal wear and tear:
- The tool has been abused, misused or improperly maintained;
  alterations have been made to the tool.

IN NO EVENT SHALL MAKITA BE LIABLE FOR ANY INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES FROM THE SALE OR USE OF THE PRODUCT. THIS DISCLAIMER APPLIES BOTH DURING AND AFTER THE TERM OF THIS WARRANTY.

MAKITA DISCLAIMS LIABILITY FOR ANY IMPLIED WARRANTIES, INCLUDING IMPLIED WARRANTIES OF "MERCHANTABILITY" AND "FITNESS FOR A SPECIFIC PURPOSE," AFTER THE ONE-YEAR TERM OF THIS WARRANTY.

This Warranty gives you specific legal rights, and you may also have other rights which vary from state to state. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. Some states do not allow limitation on how long an implied warranty lasts, so the above limitation may not apply to you.

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